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Treatment of attrition of teeth pdf

Treatment for generalised attrition of teeth. What causes attrition in teeth. Treatment for attrition of anterior teeth. Treatment of severely attrited teeth. Treatment of attrition of teeth. How to prevent attrition of teeth.

Dental attrition is a significant issue that affects tooth wear, diagnosis, and treatment planning. A review of existing literature suggests that younger age groups exhibit less enamel involvement in attrition, whereas older age groups show more extensive attrition involving both enamel and dentine. Males tend to have higher attrition scores than females, and the severity of attrition is also more pronounced in males. The anatomy of a mammalian tooth consists of various structures, including dentin, enamel, and cementum. The relationship between stress, bruxism, and attrition was studied using Spearman correlation tests, which showed no significant correlation among domestic civil aviation pilots in Indonesia. Studies have confirmed that immersion in ethanol-containing mouthwash increases the surface roughness of nanohybrid composite resin. Clinicians' strategies for managing worn dentitions range from extensive prosthodontics to adhesive techniques, but there is a lack of evidence regarding long-term treatment outcomes and materials. The progression of tooth wear is slow with periods of activity and inactivity, and restorations can be indicated. However, prevention and monitoring are crucial strategies in maintaining tooth life. Treatment success requires motivated patients and skilled dental technicians, who should be involved in the planning stages to enhance treatment results. The wear and tear on teeth can be a complex issue, influenced by factors such as the type of treatment, vertical dimension of occlusion, space available for restorations, and choice of material. It's believed that ancient populations living in environments with heavy wear experienced continuous tooth reduction and migration due to life-long attrition, which has been passed down through generations. However, a recent decline in wear severity has led to the failure to develop attritional occlusion. Studies have shown that if there is no extreme increase in OVD (over Vertical Dimension) and the occlusion remains stable, adaptation is possible. Research has also revealed limited associations between toothwear severity and temporomandibular disorders such as joint tenderness, referred pain, and limitation of mouth opening. Articles by experts like Paesani, Rees, Hooper, and others have investigated the erosive potential of substances like lemonade on enamel and dentine. Additionally, studies have explored the effects of chewing patterns on occlusal wear and the significance of mandibular border movements. Overall, managing toothwear caused by bruxism requires a comprehensive approach considering various factors, as seen in the case study by Rao and Goyal. The hypothesis that ancient populations' teeth were continuously changing due to life-long attrition and compensatory migration is also supported by research. References: * Rao, M. K., & Goyal, K. (2005). Management of a case of severe teeth wear caused by bruxism. * Yadav, S. (2011). A limited association between the severity of attrition and TMJ dysfunction. * Paesani, D. A. (2010). Toothwear. In Bruxism – Theory and Practice (pp. 123–147). * Rees, J. S., Burford, K., Loyn, T., & et al. (1999). The erosive potential of alcoholic lemonades. * Hooper, S., West, N. X., Pickles, M. J., Joiner, A., Newcombe, R. G., & Addy, M. (2003). Investigation of erosion and abrasion on enamel and dentine. * Spear, F. (2012). Treating the worn dentition. The relationship between jaw disorders and bruxism has been extensively studied, with researchers highlighting the importance of occlusal therapy in managing temporomandibular disorders. A study published in the Journal of Oral Rehabilitation found that patients suffering from TMJ disorders often require prosthodontic treatment to alleviate symptoms. A study published by Berry and Poole (1976) explored the mechanisms of compensation related to tooth wear. This topic has been revisited in subsequent studies, including a retrospective analysis by Gough and Setchell (1999), which examined the use of an appliance for producing localized occlusal space through relative axial tooth movement. The concept of dental erosion was further discussed by Chadwick (2006). The "Dahl principle" was also explored by Briggs et al. (1997) and reviewed in a study by Saha and Summerwill (2004). A technique for simple and aesthetic treatment of anterior tooth wear was presented by Mizrahi (2004), while Saha and Summerwill's review highlighted the importance of the Dahl concept. The clinical evolution of the "Dahl principle" was also explored by Briggs et al. (1997). Furthermore, Poyser et al.'s study (2005) examined the past, present, and future of the Dahl concept. Treatment outcomes for localized anterior tooth wear at an increased occlusal vertical dimension were studied by Gow et al. (2002), while Haemmings et al.'s research (2000) focused on the treatment of tooth wear with direct composite restorations. The survival and clinical performance of resin-based composite restorations used to treat localized anterior tooth wear was investigated by Redman et al. (2003). Additionally, Gulamali et al.'s study (2011) evaluated the survival analysis of composite Dahl restorations provided for managing localized anterior tooth wear. A retrospective study on the survival and patient satisfaction with composite Dahl restorations in managing localized anterior tooth wear was conducted by Al Jawad and Rees (2016). Finally, Satterthwaite's research (2006) examined indirect restorations on teeth with reduced crown height. Direct and indirect restorations have been used to treat advanced tooth wear, including attrition and erosion, with varying degrees of success. A study published in the European Journal of Prosthetic Dentistry found that direct and indirect restorations had a long-term survival rate of 90% (Smales et al., 2007). Another study published in the Journal of Dental Research discovered that direct composite restorations had a 5-year survival rate of 80%, with improvements in survival rates after 8 years (Milosevic & Burnside, 2016). A clinical evaluation of resin-bonded gold alloy veneers was conducted by Chana et al. (2000), which reported an average lifespan of 3.5 years for these restorations. In contrast, a study on the restorative management of worn dentition found that generalized tooth wear required more frequent and complex restorations (Chu et al., 2002). A retrospective analysis of pulpal vitality beneath ceramic metal crowns or bridges revealed a high mortality rate within the first year after placement (Cheung et al., 2005). Additionally, studies on tooth structure removal associated with different preparation designs for anterior teeth found that certain preparations led to increased tooth loss (Edelhoff & Sorensen, 2001). Overall, the effectiveness of direct and indirect restorations in managing advanced tooth wear is an area of ongoing research.